EXECUTIVE SUMMARY

HIV/AIDS Annual Report – July 2012
State of Arizona

General Comments

In Arizona's HIV/AIDS reporting, estimates of incidence are based upon the sum of new HIV cases, and new AIDS cases not diagnosed as HIV infections in any prior calendar year. These cases are referred to as *emergent* cases and are used as an estimate of incidence. Cases of HIV/AIDS can only be counted as emergent in the year they were first diagnosed with HIV infection. Persons who were emergent as HIV and diagnosed as AIDS in the same calendar year are counted as emergent AIDS to avoid double counting. This method is the most straightforward method available for estimating incidence.

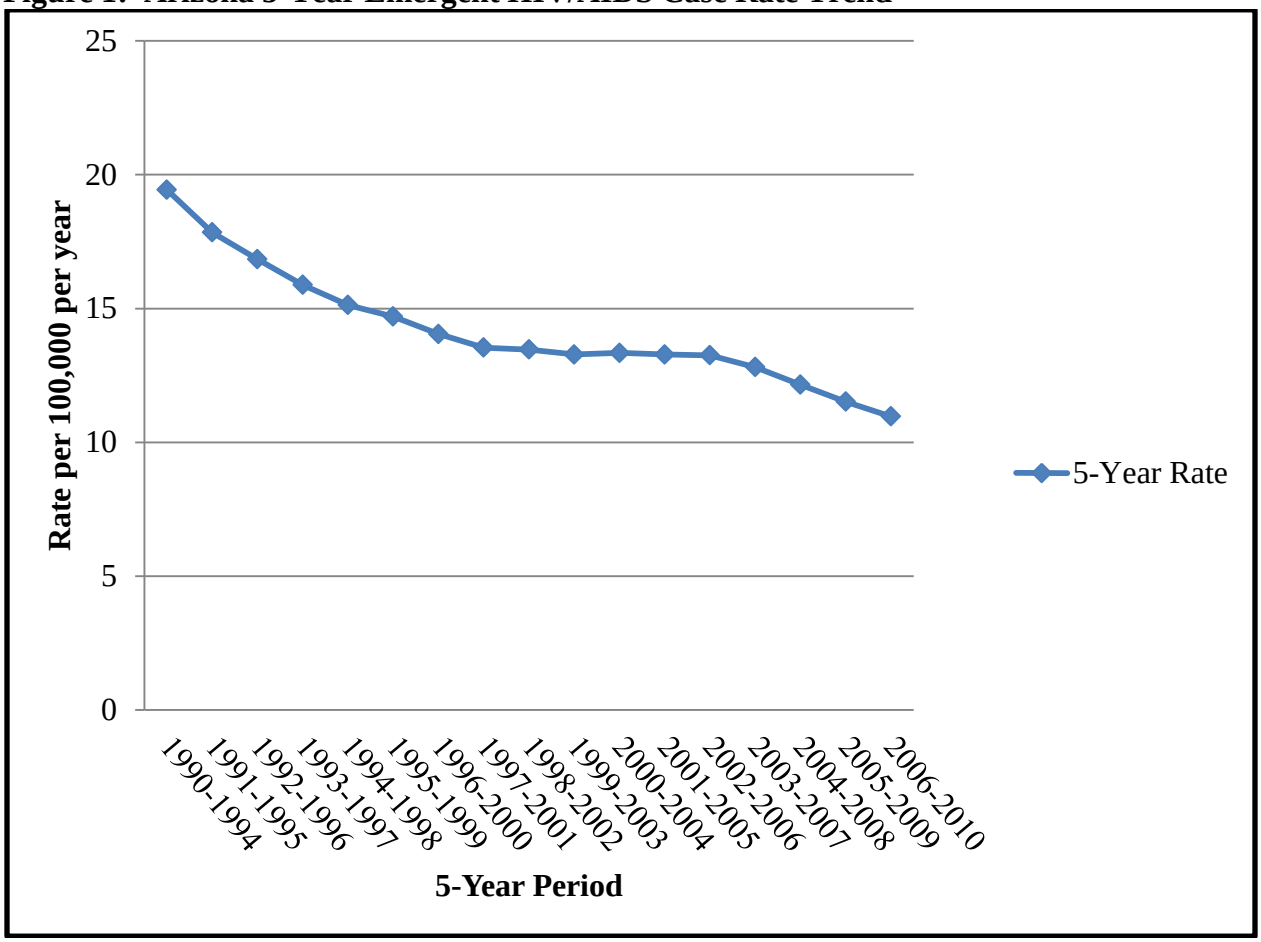
This report includes current (as of June 1, 2012) estimated prevalence. Incidence estimates for the 5-year reporting timeframes (2001-2005 and 2006-2010) used in this report are expressed as annualized rates for purposes of valid comparison with the 5-year timeframes in prior annual reports, or single-year annual rates provided elsewhere. These annualized 5-year rates may be regarded as the average annual rate across the 5 years in the reporting timeframe. For comparison to prior period prevalence or incidence, please refer to previous annual reports.

The HIV/AIDS program is working to improve linkages between State or County disease prevention programs, and care delivery programs under the Ryan White Treatment Modernization Act. These efforts will improve delivery of care to persons living with HIV/AIDS in Arizona, and improve the quality of data reporting upon which these programs depend.

Current Data

The State of Arizona is has experienced significant population growth over the last decade. Most of that growth is taking place in the Phoenix Metropolitan area. Recent trends show the 5-year HIV/AIDS emergence case rate has been declining. 5-year average case rate trends are shown in Figure 1 below. Five-year average rates are not as subject to year-on-year variance as annual rates.

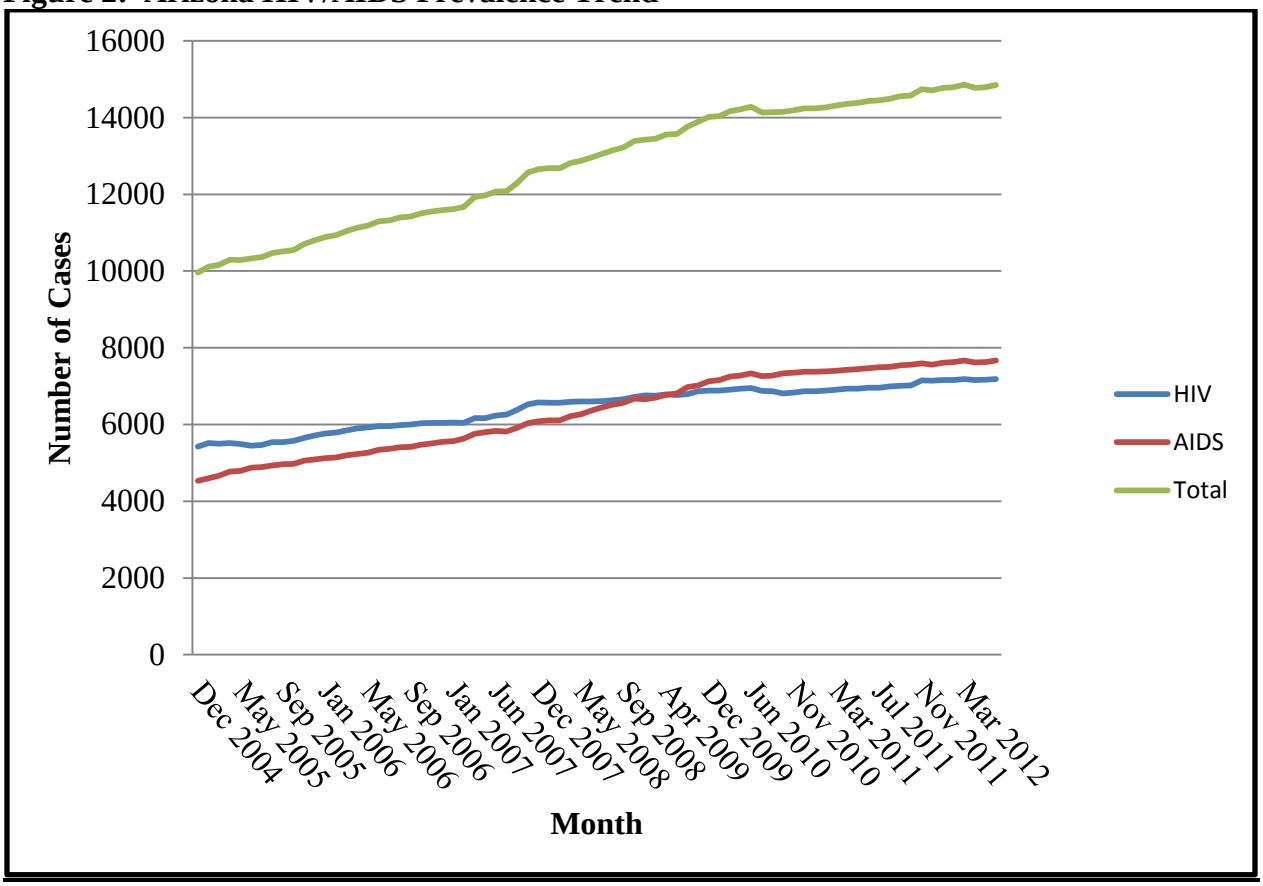
Figure 1: Arizona 5-Year Emergent HIV/AIDS Case Rate Trend



The five-year emergent HIV/AIDS case rate declined steadily throughout the 1990s, leveling off from the 1998-2002 time period and beginning to decline slightly again starting with the 2003-2007 time period. The rate of emergent HIV infection in Arizona was 10.97 per 100,000 per year during the 2006-2010 time period. According to the most recent estimates of the Center for Disease Control and Prevention (CDC), the 2010 estimated HIV/AIDS diagnosis rate for Arizona was under the national rate but higher than almost two-thirds of states with well-established confidential name-based HIV reporting (CDC slide set, 2010 data at http://www.cdc.gov/hiv/topics/surveillance/resources/slides/general/index.htm).

Arizona is currently considered to be a moderate morbidity state, with CDC-estimated prevalence in the middle rate category among states with well-established confidential name-based HIV reporting. However, prevalence rates continue to rise in Arizona. Prevalence of reported HIV infection is 230.05 cases per 100,000 persons (up from 216.27 last year). Currently, there are 14,705 persons living with HIV/AIDS in Arizona, a rise of nearly 30% in 5 years. The increase in prevalence rates appears to be due to the efficacy of multi-drug treatments for HIV infection, which have sharply reduced HIV-related death. Additionally, Arizona's increased population growth may be contributing to an increase in prevalence; 23% of prevalent cases were diagnosed in another state, while only 11% of cases present in Arizona five years ago have left the state.

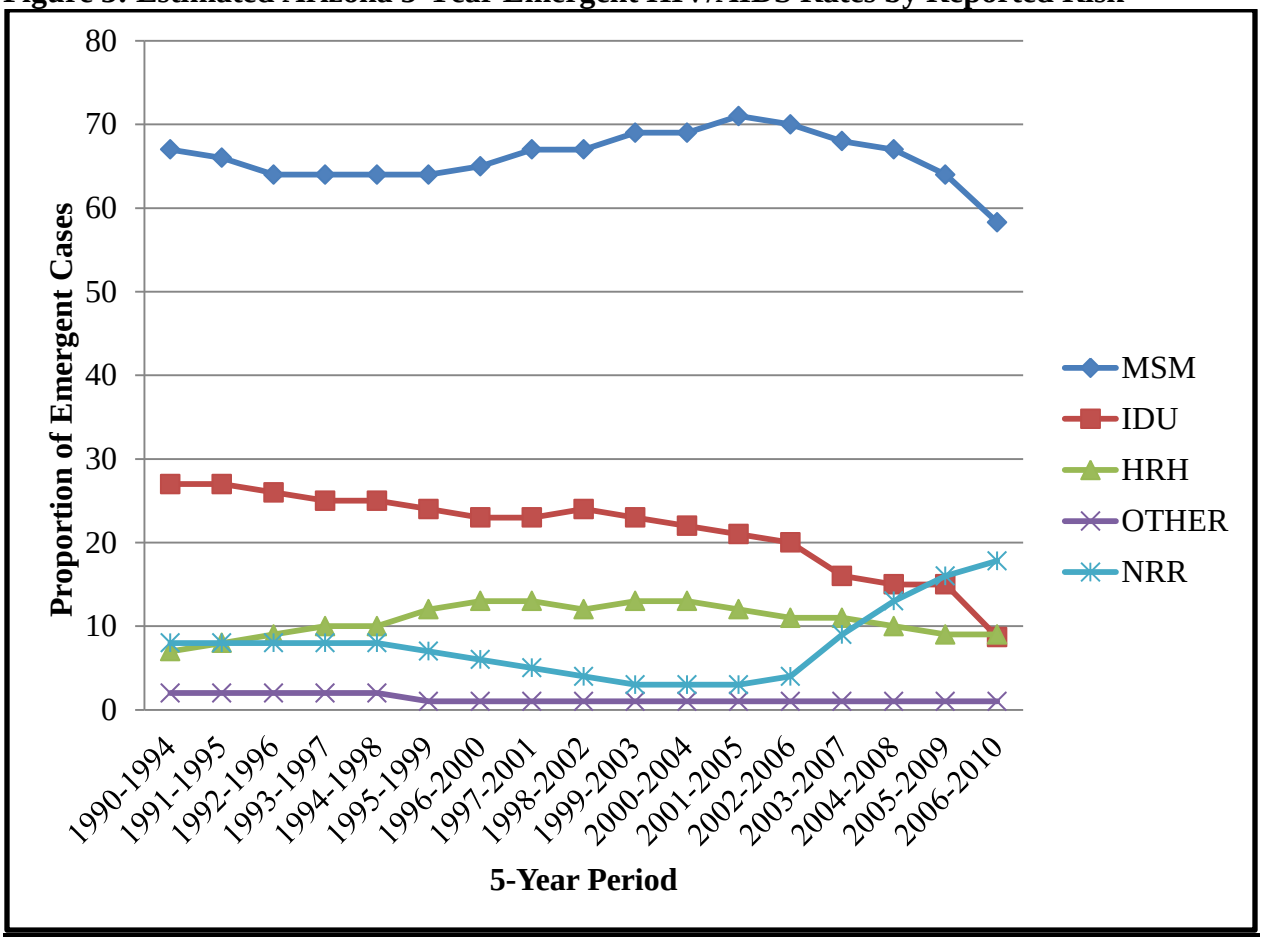
Figure 2: Arizona HIV/AIDS Prevalence Trend



In June 2009, the number of persons living with AIDS in Arizona surpassed the number of persons with HIV infection who have not been diagnosed with AIDS. Because the burden of HIV-related disease is greater among persons with AIDS, treatment, utilization, and continuity of care will become increasingly critical issues.

Men who have sex with men (MSM) account for the largest proportion of emergent HIV/AIDS cases in Arizona. The proportion of emergent cases in 2011 that are MSM-related was 60.5%. The proportion of emergent cases that were MSM-related had been rising over time, but has declined in recent years. The downward trend in rates among MSM has been mirrored by a similar upward trend among persons with no reported risk (NRR), which has increased from 8% in 2006 to a high of 26% in 2009, while trends among other risk groups have not been similarly altered. Increased efforts to ascertain risk have decreased this risk to 13%. The proportion of emergent cases by risk for 5-year incidence rates, which minimizes year-on-year variation, is shown in Figure 3.

Figure 3: Estimated Arizona 5-Year Emergent HIV/AIDS Rates by Reported Risk



Pediatric HIV Infection

In 2010, there were two cases of emergent HIV infection among children under age 13 in Arizona.

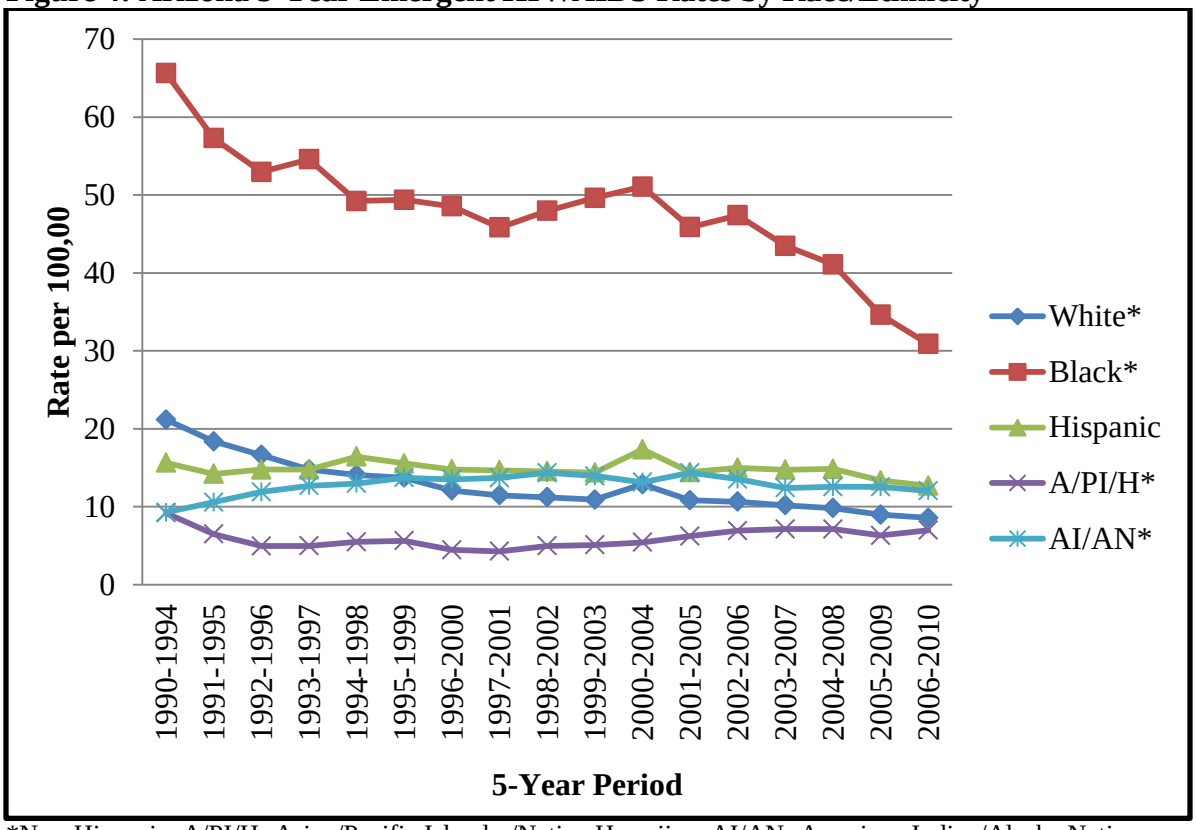
Urbanization of HIV

Rates of HIV/AIDS prevalence and emergence differ sharply between counties in Arizona that are primarily urban and those that are primarily rural. At the time of this report, 86% of reported HIV/AIDS prevalence and 83% of emergent infections occur in urban counties that contain 75% of the state population. The average rate of HIV/AIDS emergent infection and HIV/AIDS prevalence in urban counties in Arizona is, respectively, 63% and 103% greater than the average rates in rural counties. In 2010, the rate of HIV/AIDS prevalence in urban counties in Arizona was only 73% greater than the rate in rural counties. Reported emergent rates of HIV/AIDS in the 2006-2010 time period are highest in Pinal County (15.18 per 100,000 per year). From 2006-2010, 26% of emergent cases reported in Pinal are among prisoners, many of whom are not originally from Pinal County, or from the state of Arizona (several private prisons located in Pinal County contract with federal agencies and other states to house prisoners). Reported prevalence rates of HIV/AIDS at the time of this report are highest in Maricopa County (268.37 per 100,000).

Race/Ethnicity Disparities

Rates of HIV/AIDS prevalence and emergence differ sharply between African Americans and other race/ethnicity groups. African Americans are the only race/ethnicity group in Arizona that experiences such a severe disparity of HIV/AIDS impact. Currently, the emergent HIV/AIDS rate among African Americans in Arizona is nearly three times that of the state average. This disparity is presented in Figure 4 below.

Figure 4: Arizona 5-Year Emergent HIV/AIDS Rates by Race/Ethnicity



*Non-Hispanic, A/PI/H=Asian/Pacific Islander/Native Hawaiian, AI/AN=American Indian/Alaska Native

The disparity observed in Arizona among African Americans is also seen elsewhere in the country. The CDC estimates that, in 2009, blacks were 14% of the total population in states with established confidential HIV reporting, and 44% of new HIV diagnoses. As observed in Arizona, CDC also reports a more pronounced racial disparity nationally among women than among men when blacks are compared with other race groups.

Groups of Special Concern

Effective prevention policy focuses upon groups most adversely impacted by HIV/AIDS, or known to be at greater risk of transmitting HIV infection. In Arizona, there is a clear and alarming impact of HIV/AIDS in the African American community. African Americans in Arizona experience an epidemic of HIV/AIDS that is almost three times more severe than any other race/ethnic group. This disparity is more pronounced among African American women than among African American men. Among African American women, the rate of emergent HIV infection continues to rise. MSM also appear to be at increased risk of HIV/AIDS infection. MSM is the most commonly reported transmission category in Arizona, making up 61% of emergent cases and 64% of prevalent cases.

Since 2005, Arizona has been seeing an increase of early syphilis. The link between Sexually Transmitted Disease (STD) and increased likelihood of HIV transmission is well established. Among males diagnosed with HIV in 2002, approximately 7% reported a previous, concurrent or subsequent syphilis diagnosis; this number increased to a high of 13% in 2006. Additionally, the percentage of reported emergent early syphilis cases with a reported previous HIV diagnosis rose from 2.4% in 2002 to 22% in 2008; among these cases, 95% reported male-to-male sexual contact. For this reason, the ADHS Office of Disease Integration Services is working to expand prevention efforts in this area, including the delivery of priority Partner Services to HIV infected persons who experience an STD diagnosis.

Multi-Drug/Highly Active Anti-Retroviral Therapy (HAART) has been extremely successful in preventing HIV related death and disease; deaths among HIV-positive persons have dropped precipitously starting in 1996. High viral loads increase the likelihood of HIV transmission. Linking persons with HIV infection to HIV primary care, including HAART therapy should be emphasized in ongoing prevention efforts. Persons who have an unmet need for HIV primary care, or who have dropped out of care should receive counseling and referral services with priority as part of ongoing HIV prevention efforts.

In July 2012, the FDA approved Truvada for HIV prevention in high-risk populations. The effect of Truvada for HIV prevention has yet to be seen in these data, though studies have shown it to be effective in stopping HIV infections, particularly in the MSM community (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3282498/). The drug is not inexpensive, however, and daily doses are necessary. The drug is not recommended for those that do not believe they can remember to take it on the same day at the same time, and it should not be used in lieu of condoms. Nonetheless, when used correctly and with other HIV prevention strategies, pre-exposure prophylaxis can be an effective tool for persons at very high risk of HIV.